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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/079,479	02/22/2002	Gottlieb-Georg Lindner	215150US0	6695

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EXAMINER	
NGUYEN, NGOC YEN M	
ART UNIT	**PAPER NUMBER**
1754	

DATE MAILED: 04/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/079,479	LINDNER ET AL.	
	Examiner	Art Unit	
	Ngoc-Yen M. Nguyen	1754	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 February 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3-5 and 10-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3-5 and 10-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after allowance or after an Office action under *Ex Parte Quayle*, 25 USPQ 74, 453 O.G. 213 (Comm'r Pat. 1935). Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on February 25, 2005 has been entered.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 3, 13, 20 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for forming a silicate by adding metal ions to the process (note page 3 of the instant specification, first paragraph), does not reasonably provide enablement for forming silica. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make/use the invention commensurate in scope with these claims. As disclosed in the instant specification, by adding the at least one metal ion, a silicate is formed, not silica. It should be noted that the instant independent claims are drawn to a silica or a process of producing silica, not silicate.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 4-5, 10-12, 14-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chevalier (6,107,226).

Chevalier '226 discloses silica beads having a substantially spherical morphology and a mean particle size of at least 80 microns, a maximum BET surface area of 130 m^2/g, a maximum CTAB surface area of 130 m^2/g (note claim 2) and a DOP oil uptake of at most 270 ml/100g.

The values for the BET and CTAB surface areas in Chevalier '226 overlap the claimed ranges. With respect to the encompassing and overlapping ranges previously discussed, the subject matter as a whole would have been obvious to one of ordinary skill in the art at the time of invention to select the portion of the prior art's range which is within the range of the applicants' claims because it has been held prima facie case of obviousness to select a value in a known range by optimization for the results. *In re Boesch*, 205 USPQ 215. Additionally, the subject matter as a whole would have been obvious to one of ordinary skill in the art at the time invention was made to have selected the overlapping portion of the range disclosed by the reference because overlapping ranges have been held to be a prima facie case of obviousness. *In re Malagari*, 182 USPQ.

Chevalier '226 only disclose DOP oil uptake, not DBP absorption as required in the instant claims, however, since the DOP oil uptake in Chevalier '226 is within the claimed range, it would have been obvious to one of ordinary skill in the art to expect the DBP absorption for the product of Chevalier '226 also to be within the claimed range because DOP and DBP are analogous compound for measuring oil absorption for silica.

For claims 14-16, the silica of Chevallier '226 can be used as additive for elastomers (note column 1, lines 42-46).

In the process of Chevalier '226, the precipitation of silica is carried out according to the following stages:

Initially, a base mixture is formed, which contains silicate and an electrolyte. The amount of silicate present in the base mixture may be the entire amount required for the reaction, or it may be only a portion of such total amount. The electrolyte is a salt of an alkali or alkaline earth metal.

The second stage entails adding the acidifying agent to the base mixture described above. This addition, which involves a correlative lowering of the pH of the reaction medium, is continued until a pH value of about 7 is attained.

Once this value is attained, and if the base mixture contains only a portion of the total amount of silicate required, additional acidifying agent and the remaining amount of silicate is then simultaneously added thereto.

The precipitation reaction proper is terminated when all of the silicate has been added.

It is possible, after the precipitation, to add in an optional later stage, an additional amount of the acidifying agent. This addition is generally continued until a pH of about 3 to 6.5 is attained.

Upon completion of the above operations, a slurry is obtained, which is then filtered and washed. The other characteristic stage of the process is the drying step (note column 3, line 39 to column 4, line 18).

Chevallier '226 does not specifically disclose the "constant alkali number", however, since the pH of the process of Chevallier '226 varies, it is assumed that the alkali number in Chevallier '226 is constant. For the value for the alkali number, since the pH disclosed for the process of Chevallier '226 overlaps the claimed pH range, one skilled in the art would have expected that the alkali number for Chevallier '226 would also overlap the claimed alkali number range (note instant specification, page 3, lines 15-26, which discloses the correlation between the pH and the alkali number).

The difference not yet discussed is Chevallier '226 does not disclose the choline chloride absorption and the DBP/choline chloride absorption ratio for the silica product.

However, since the product of Chevallier '226 is formed by a process similar the claimed process, the BET, CTAB surface areas of Chevallier '226 overlap those of the claimed product, it would have been obvious to one of ordinary skill in the art to reasonably expect that the choline chloride absorption value and the ratio of DBP/choline chloride absorption for the product of Chevallier '226 to at least overlap those of the claimed product.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ngoc-Yen M. Nguyen whose telephone number is (571) 272-1356. The examiner is currently on Part time schedule.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Stan Silverman can be reached on (571) 272-1358. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed (571) 272-1700.

Ngoc-Yen M. Nguyen
Primary Examiner
Art Unit 1754

nmn
April 18, 2005